the reader to pause and turn back, which — particularly in the heat and crisis of a military evolution or charge — is, it must be allowed, vexatious enough. One would say, that, at times, the writer thinks he is in a fight, and holds a battle-axe instead of a pen, he enjoys the shock of arms in such a soldierly way! He has a soul for the archaic poetry of war and heroic verse; which is demonstrated in his vigorous and glowing translation of Æschylus, and is not less visible in the engravings, done after his own cunning pencil, which ornament his book, and heighten the effect of the text by the testimony of "the faithful eyes" of the reader.

ART. III. — 1. *Discussions on Philosophy and Literature, Education and University Reform: — chiefly from the Edinburgh Review, corrected, vindicated, enlarged, in Notes and Appendices.* By SIR WILLIAM HAMILTON, Bart. London: Longmans. 1852. 8vo. pp. 758.

2. *The Works of* THOMAS REID, D. D., *now fully collected, with Selections from his Unpublished Letters. Preface, Notes, and Supplementary Dissertations*, by SIR WILLIAM HAMILTON, Bart., Advocate, Master of Arts (Oxford), etc.; of the Institute of France, the Latin Society of Jena, and many other Literary Bodies, Foreign and British; Professor of Logic and Metaphysics in the University of Edinburgh. *Text collated and revised, Useful Distinctions inserted, Leading Words and Propositions marked out, Allusions indicated, Quotations filled up. Prefixed, Stewart's Account of the Life and Writings of Reid, with Notes by the Editor. Copious Indices subjoined.* Edinburgh: Maclachlan, Stewart, & Co. 1846. 8vo. pp. 914.

SIR WILLIAM HAMILTON, as an author, is not so well known as he should be, out of Scotland, though the list of honors appended to his name on the second title-page here transcribed, is enough to prove that his merits are fully reeognized by the learned. With all his marvellous acquirements and

qualifications, he is singularly deficient in the art of making a book. His gifts are, eminently, those of a critic; he either cannot, or will not, expound his own thought, except while commenting on the thoughts of others. As a critic and a controversialist, however, he is, perhaps, the most formidable person in Europe. His erudition is so extensive and profound, as to be somewhat oppressive; but this load of learning, under which a common man would be extinguished as effectually as Goose Gibbie was in the moss-trooper's helmet, seems only to add keenness and force to his offensive weapons. It is used by him, not in Dugald Stewart's manner, to overlay his thought with the pleasant shows of literature, but to buttress his assertions and vindicate his logic. In the forest of citations, with which some of his essays are overgrown, it would be difficult to point out one which is either inappropriate or superfluous, except that, the point being already established, it might be regarded as a needless accumulation of evidence. Some of his articles are as great curiosities in their way as the famous Dissertation on the Epistles of Phalaris, by Dr. Bentley,— to whom, by the bye, in some striking points of character, Sir William Hamilton bears no small resemblance. He is equally keen and merciless in detecting the blunders of his opponents, and quite as pungent and effective in the epithets with which he brands their short-comings and their errors. We will not say, that, like Bentley, he has a natural liking for these gladiatorial contests, and is ever ready to answer a challenge or provoke a fight on some matter of recondite learning, or some dispute about the management of a college. But, in view of his original and ingenious criticisms upon the leading principles of logic and metaphysics, of his learned contributions to the history of philosophy, and of his admirable essays upon university education, we may be permitted to regret that any thing of merely personal and temporary interest should have been allowed to divert his time and attention from them, so that they now appear only in a form which he would himself designate as fragmentary and incomplete. The editor of Dr. Reid is himself in great need of an editor; or rather, he should have had some person at his elbow to perform for him the

same service which Dumont rendered to Jeremy Bentham. With all his learning and acuteness, with a style almost unrivalled for conciseness, precision, and force, and with wonderful clearness of thought in evolving the gist of other people's ideas or expounding his own, he is wofully deficient in that very low but very necessary art, — the art of book-making. In these days, when the art of book-making seems about the only portion of the trade of authorship which is thoroughly understood, it is ludicrous to meet with a volume like this edition of Reid, — a stout octavo of nearly a thousand pages in double columns and fine print, — bristling with erudition, concise in expression, and rich in thought, and yet so imperfectly put together that one cannot read twenty pages understandingly without painfully ransacking other portions of the volume — the promised "copious indices" being yet unpublished — and which was so hurried through the press that the last page ends, not only in the middle of a paragraph, but absolutely in the midst of a sentence. The very title-page of the book, as we have copied it at length, is a bibliographical curiosity.

No wonder, then, that the professional critics, who are supposed to live only by skimming other people's milk, have not seen fit to meddle with such a publication. It has not been formally reviewed, we believe, in any of the leading journals of Great Britain, though it has been before the public six years. There is no such thing as reading Sir William Hamilton's books superficially; one might as well attempt to skim Euclid, or the *Mécanique Céleste*. The fragmentary form in which his writings have appeared is doubly unfortunate, because his turn of thought is so rigidly logical and systematic. No one is more capable of rounding off his speculations into a system or connected whole; yet no eminent thinker has accomplished less in this respect, so far as the form of his publications is concerned. His own doctrines have been explained and illustrated only while he was engaged in commenting upon the doctrines of others; they are vindicated more by refuting all the opinions with which they come in conflict, than by an array of argument or evidence tending directly to their support. Of course, the validity of

this proceeding depends on the completeness of the previous enumeration and survey of the other systems which have been proposed, or may be conceived as possible. The mathematical process of *exhaustion* is usually held to be exclusively mathematical, because the narrowness and severe method of the science of pure quantity allow all the possible solutions of the problem to be brought together in a single view, and all but one being eliminated by demonstrative reasoning, the truth of that one is established. But Hamilton has successfully applied this form of reasoning to metaphysical subjects, being admirably qualified for it by his immense erudition, and the singular accuracy and neatness with which he states a problem, so that all the suppositions which can be framed respecting it may be confronted with each other, and their relative merit be determined. His statement and definition of the four fundamental forms to which all theories respecting the Absolute and the Infinite can be reduced, of the six "possible and actual" systems of the philosophy of perception, and of the seven hypotheses that have been framed to account for the judgment of causality, are masterpieces of brevity, clearness, and precision. But his own opinion is thus left to stand in juxtaposition and contrast with the opinions of other philosophers, or, in reference to himself, as an isolated doctrine upon one particular subject; it is not seen in connection and harmony with the rest of his philosophy, of which it is but a fragment. All his publications being occasional in origin and critical in form, these parts or fragments, though perfectly consistent, and having indeed a secret tie of connection and interdependence, have never been brought together, and framed into one whole. He has only given us the stones out of which an arch can be framed, without troubling himself to put them together. The Supplementary Dissertations to Reid, as we have said, are unfinished; each of his contributions to the Edinburgh Review upon metaphysical subjects contains the germs of his whole theory; but they are so imperfectly developed, that no hand but his own can expand them into a uniform system.

To the edition of Dr. Reid's writings, which was published in 1846, was appended an advertisement of two works then

"preparing for publication by Sir William Hamilton." The first was an "Essay towards a New Analytic of Logical Forms," intended to be a full exposition of the additions which he claims to have made to Aristotle's doctrine of the syllogism, whereby the theory is simplified and completed; the second was entitled "Contributions towards a true history of Luther and the Lutherans," being essentially a rejoinder to Archdeacon Hare, who had somewhat fiercely attacked Sir William for a few sharp observations, incidentally made in the Edinburgh Review, upon the character of the great Reformer. Even these announcements or promises were probably extorted from him by two controversies in which he was involved, — the one, as indicated, with Dr. Hare, and the other with the distinguished mathematician, Mr. De Morgan, respecting the priority and validity of certain discoveries, claimed by both, in the science of logic. But the announcements have not been fulfilled, and are not likely to be; from a failure of health or inclination, or from an invincible repugnance to the idea of making an independent book, he has been obliged to turn commentator upon his own occasional writings. Portions of the supplemental matter attached to the work first named at the head of this article seem designed to take the place of both the promised publications. Some very learned and truculent notes to the offensive passage originally inserted in the Edinburgh Review is his only reply to Dr. Hare; and an Appendix, "Of syllogism, its kinds, canons, notations, etc.," contains his rejoinder to Professor De Morgan. We shall not meddle with either of these controversies, and have only alluded to them as curious illustrations of the writer's reluctance to make a book, or to publish any of his speculations complete in form and detail. We put aside, also, all that relates to logic, for within our narrow limits, the subject could hardly be made interesting, or even intelligible. A brief consideration of some of his metaphysical doctrines, with a rapid glance at what he has written upon university education, with especial reference to Oxford, is all that we shall attempt.

On the very threshold of psychological or metaphysical inquiry, almost the first question which suggests itself is that

which concerns the existence of an external world, and the means by which we obtain our belief or knowledge that it exists. The phenomena of dreaming, which often exactly repeat or counterfeit our waking experience, are enough to suggest the possibility, at least, that this waking experience, also, may be deceitful, and the objects represented in it may be counterfeit. Perhaps these phenomena, also, first suggested the doctrine which, till the time of Reid, was generally accepted by the philosophers, that the mind does not take cognizance of external things themselves, but only of their images, shadows, or impressions on the brain. The maxim, that nothing can act but where it is, seems almost to compel us to believe, that the thinking being can perceive nothing with which it is not actually in contact, and that, in its narrow seat within the recesses of our mortal frame,— be it in the brain, or elsewhere, — it can *know* only the images or impressions which are brought to it through the senses, and, from these, it can only *infer* the real existence of the outward objects which the ideas or images represent. The system of idealism, or of disbelief in the reality of outward things, which is naturally suggested by these considerations, is neither extravagant nor absurd. It cannot be confuted by the Johnsonian argument of striking one's foot against a stone, and it does not expose the adherent of it to the imputation of inconsistency for turning out of the direct path in order to avoid an obstacle, or for taking good care to avoid a fire or a precipice. The idealist admits that *the ideas* are real, and that we are as intimately concerned with them as if they truly represented outward objects; he believes, also, that they follow each other according to the usual sequences of cause and effect, and are governed throughout by laws as invariable, and as easily ascertained, as those which the realist attributes to the external universe. Admit, that the precipice and the fire do not actually exist; still, if we are sure that the mere imagination of falling over the one or being burned by the other will be followed by the feeling or sensation of exquisite pain, we may reasonably so guard our conduct as to prevent this imagination or idea from coming into our minds. It is not pleasant merely to dream of some great calamity; and he

who is apt to have such dreams may reasonably take what precautions he can against their recurrence, though he knows the calamity to be a mere figment of the brain.

Reasoning in this manner, the idealist further denies that his system is either sceptical in itself, or that it naturally leads to scepticism. It leaves human conduct to be regulated precisely as it would be upon the realist hypothesis. It disturbs neither our memories nor our anticipations; and it elevates and spiritualizes our existence. It cuts up materialism by the roots; and as it does away with the chief difficulties which ordinary minds find in admitting the doctrines of the being of a God and the immortality of the soul, it offers a broad and sure basis for religious truth. It was for these reasons that the most distinguished advocate of idealism in modern times, Bishop Berkeley, espoused the system so warmly, and defended it with so much acuteness. There can be no doubt that he was a thorough convert to it; he accepted it, not merely as ingenious philosophical speculation, but as a fact, — as the only true view of the phenomena of our nature, and the government of God.

But whatever force there may be in the arguments which were so convincing to him, it was found, practically, that the system *did* lead to scepticism. By taking away the grounds of a belief which is both natural and universal, and which cannot, at first, be even doubted without a severe exercise of thought, it shook men's faith in all those primary truths which are at once the basis of their knowledge and the guides of their conduct. It *seemed* to throw distrust on the evidence of the senses, as it really invalidated the spontaneous conclusions which every man inevitably forms from that evidence. If a main pillar of the edifice could be so easily shaken, why might not the whole fabric be thrown down? Hume attempted to answer this question. Beginning where Berkeley began, he proceeded much farther, and left unassailed hardly one article of human faith. He denied the reality, not only of the object perceived, but of the mind perceiving. He reduced all thinking existence to a succession of rapidly fleeting ideas, each one being known only at the instant of its manifestation to consciousness, and then fading away, leaving no

surely recognizable trace of itself on the memory, and affording no ground for an anticipation of the future. We do not even know, he maintains, that any one thing depends upon another in the relation of an effect to its cause. We know no true cause whatever; and our only idea of power is a fiction and a blunder. The conclusion of the whole matter, according to his philosophy, is, not the mere negation of this or that positive belief, but universal distrust of the human faculties, considered as means for the acquisition of truth. They contradict each other, and leave nothing certain except that nothing can be known.

Against scepticism so sweeping as this, a reaction was inevitable, and it speedily came. The Scotch philosophers, with Reid at their head, appealed to common sense, as the only means of rescue from speculative vagaries and delusions. The appeal was successful, but the sceptics denied that the question had been referred to a competent tribunal; they said they had been voted down, but that their arguments had not been confuted. Hume always admitted that the common belief was invincible; but he maintained that it rested on no sure foundation — that it was, in fact, not only baseless, but contradictory. His conclusion was, that human nature compels us to believe what the reason rejects, so that we are necessarily involved in a contradiction, and are slaves to error. It was not so much the truth itself, as the competency of our faculties to discover truth, which he impeached. Philosophical scepticism, therefore, cannot be refuted by an appeal to common sense, until it is proved that this authority has jurisdiction in the case, or is competent to decide the question. Thus the issue was changed, and the Scotch philosophers were compelled to make it their chief object to legitimate the argument from common sense, and to prove that it was strictly philosophical and scientific. One of Sir William Hamilton's Supplementary Dissertations is devoted to this subject, and is certainly the most elaborate and thorough discussion of it which has yet appeared.

The sceptic, as well as the believer, is bound to admit, that there are certain primary truths, on which all reasoning is founded, and to which it can all be traced back; otherwise,

he has no starting-point for his argument, and his whole proceeding is null. Foremost among these truths are the facts of consciousness, which we cannot doubt, because that doubt itself, being an affection of mind, can be known only so far as we are conscious of it. It would be suicidal, on the part of any philosophy, to call in question the real existence of those sensations, emotions, and thoughts, of which at each instant the philosopher himself is conscious, and on which he builds his system, whatever it may be. Hume, therefore, who doubted every thing else, admitted the reality of these mental states, limiting each, however, to the instant of its manifestation. The testimony of consciousness is to be strictly confined to what occurs within its own province; it is good evidence as to the reality and the character of the mental phenomenon, but not to any outward fact which that phenomenon is supposed to represent. It evinces, for instance, *the reality* of our belief in the existence of an external universe; but it does not prove the *correctness* of that belief. With this exception, however, it is a good witness as to the character or nature of that belief; it comprehends the whole psychological phenomenon, but nothing beyond it.

What, then, is its testimony respecting our perception of outward things? It is, that *this perception is immediate*, or, in other words, that we take cognizance of the external object itself, and not merely of an idea, image, or mental representation of that object. How such a perception is possible — how the mind can, as it seems, go beyond itself, and acquire immediate knowledge of what is foreign to its own being, without the intervention of something else, we cannot understand; this problem is beyond the reach of the human faculties. But it would be the grossest presumption to argue that a thing is not, because we do not see *how* it is — to deny the fact, because we cannot comprehend the mode, of its existence. Of the fact, we are certain, for it is a phenomenon within the sphere of consciousness, and that faculty testifies distinctly as to its existence, and as to its character, — namely, that it is immediate, or that we perceive the thing itself, and not merely its representative. The sceptic cannot reject the evidence of consciousness in this case, because he is obliged to

admit it in every other, and to discredit it in a single instance would be to stultify his whole argument. He may still argue, it is true, that, for all we know, the object of which we have this immediate perception is an illusion and cheat; for it is not pretended that consciousness takes any note of the object itself, but only of the manner in which it is made known to us. It testifies not that the object is real, but that the perception of it is immediate, or that it does not take place by means of a representative image. The distinct exposition of this truth, — the immediateness of our knowledge of external things, — and the consequent refutation of the ideal or representative theory, is the great service which Dr. Reid has rendered to philosophy.

How far this fact goes towards establishing the correctness of our belief of the existence of an outward universe, is very clearly and forcibly shown by Sir William Hamilton.

"In the act of sensible perception, I am conscious of two things; — of *myself* as the *perceiving subject*, and of an *external reality*, in relation with my sense, as the *object perceived*. Of the existence of both these things I am convinced: because I am conscious of knowing each of them, not mediately, in something else, *as represented*, but immediately, in itself, *as existing*. Of their mutual independence I am no less convinced; because each is apprehended equally, and at once, in the same indivisible energy, the one not preceding or determining, the other not following or determined; and because each is apprehended out of, and in direct contrast to, the other." p. 747.

This is a brief exposition of what is usually called the argument from common sense for the existence of things without us. The substance of the argument is Reid's; the limitations of it, the nice distinctions which it involves, and the carefully guarded and precise manner in which it is stated, are Hamilton's. In its present form, it is certainly very far from an appeal to popular prejudice; nothing more rigidly scientific and exact can be found in the whole compass of metaphysical reasoning. That it is susceptible of abuse must be admitted; it is an appeal to the common understanding, the universal consciousness, of mankind, in order to clear a question of the needless subtleties with which it had been perplexed. Reid himself stated it very loosely; Brown

misconceived it altogether. But when kept within its proper limits, it is authoritative and legitimate. We do not say, that, properly speaking, it is a *proof*, or demonstration, that the outward world exists; for such proof the human faculties are not competent to give. No matter of fact can be demonstrated; only the relations of ideas, and abstract propositions — things which can be perfectly apprehended in themselves — are susceptible of this kind of reasoning. But the reality of outward nature is sufficiently established when our immediate knowledge of it is placed upon the same basis with our consciousness of our own existence. Then, it cannot be *dis*proved; and this is all, in our dealings with the sceptic, that we require. "The argument from common sense," says Sir William, "is of principal importance in reference to the class of contingent truths. The others, from their converse being absolutely incogitable, sufficiently guard themselves."

The question, whether any thing really exists out of the mind which perceives it, is here taken, it should be observed, only as a capital instance, or instructive example, of the application of the argument from common sense. Our author's chief purpose is to vindicate the legitimacy of this argument as one means for the discovery of truth; to show how far, and under what conditions, it is applicable; to point out its essential characteristics; and to prove, "by a chronological series of testimonies, from the dawn of speculation to the present day," that it has been generally recognized by philosophers both in reality and in name. We cannot follow him in the consideration of this broad subject; most of his conclusions may be anticipated, or deduced, from the example that has been given. The common objection, that this argument takes away the decision of a scientific question from the judgment of philosophers, and accords it to the verdict of the vulgar, is thus admirably answered.

"The first problem of Philosophy — and it is one of no easy accomplishment — being to seek out, purify, and establish, by intellectual analysis and criticism, the elementary feelings or beliefs, in which are given the elementary truths of which all are in possession; and the argument from common sense being the allegation of these feelings or beliefs as explicated and ascertained, in proof of the relative truths and

their necessary consequences; — this argument is manifestly dependent on philosophy, as an art, as an acquired dexterity, and cannot, notwithstanding the errors which they have so frequently committed, be taken out of the hands of the philosophers. Common Sense is like Common Law. Each may be laid down as the general rule of decision; but in the one case it must be left to the jurist, in the other to the philosopher, to ascertain what are the contents of the rule; and though in both instances the common man may be cited as a witness, for the custom or the fact, in neither can he be allowed to officiate as advocate or as judge." p. 752.

The argument from common sense, or the testimony of consciousness, (for they mean the same thing,) must be universally accepted, or universally rejected. If competent to prove any thing, it must be competent to prove every thing that comes within its scope. For the truths or facts which depend upon it are simple and primitive; and they depend upon nothing else. They cannot be proved by reasoning, and they rest upon no other evidence. When there is but one witness, his testimony must be unimpeachable in every respect, and upon all particulars; *falsus in uno, falsus in omnibus.* For this reason, Hamilton maintains that Dr. Thomas Brown's theory of perception is contradictory and absurd, inasmuch as it denies that we have any *immediate* perception of external things, herein rejecting the testimony of consciousness, and still bases the fact of their existence upon the universal belief of mankind, such belief resting on no other ground than what he has just refused to accept. For this reason, also, there is peculiar pertinency in our author's attempt to bring together the various appellations by which the principles of common sense have been designated, and in the series of quotations from the philosophers of all ages, in which the paramount authority of these principles is directly recognized. This work is performed with astonishing erudition and acuteness, the authors cited being the highest names in the history of philosophy, the quotations being apposite, and the commentary which accompanies them, though concise, is singularly complete and instructive. It is well to know, that the most profound philosophy is, in some of its most important results, identical with the plainest common sense, and that this has

always been acknowledged by the philosophers in general terms, however the interests of their respective theories may have led them to question it in a particular case.

It is an obvious corollary from the doctrine already stated, that all our knowledge must be either immediate and intuitive, or mediate and representative. We know either an object itself, or its image and representative, — the action of the mind in the former case being single and direct, while in the latter it is complex and indirect. Sir William Hamilton's second Supplementary Dissertation is intended to illustrate this distinction. Consciousness is the medium through which all knowledge is presented to us. If we are studying the phenomena of our own minds, with regard only to their actual condition and present existence, and without reference to any other object or idea which they are believed to represent, then our knowledge of them is intuitive, or, as our author prefers to say, presentative. But if the mental phenomenon be an act of memory or imagination, then it is considered mainly with reference to something past, or to something merely possible, but not real, which it represents. Even in this case, however, we have an intuitive knowledge of the mental phenomenon itself, and of its representative character, — the latter being as strongly marked and distinct as the former. The conclusion is, that cognitions which are intuitive are as clearly distinguished by consciousness from those which are merely representative, as feelings are from judgments, or sensations from volitions. Consequently, the assumption that mediate or representative knowledge can simulate an intuitive character, is perfectly gratuitous; the testimony of consciousness, which is the highest ground of certainty, is impeached by a blank hypothesis. It is no more reasonable to deny the immediateness of our perception of outward things, than to affirm that acts of memory are not even believed to represent some past occurrence or thought.

It is not pretended that our intuitive knowledge of the object of perception is a complete knowledge. We know it directly, but imperfectly. Nay, in one important respect, we do not know it at all; matter, or substance itself, is not cognizable by us, except as the unknown seat of certain qualities

or attributes, which are manifested to sense. Any particular body appears to us only as *something* which is extended, figured, colored, movable, hard or soft; what that something is, we cannot tell. And further, a distinction must be made among its sensible qualities, some of them being merely names for certain sensations, which exist only as they are felt, though they are referred to the body that causes them; while others are conceived to belong necessarily to the constitution of the body which is perceived, without reference to our mode of viewing it. The latter may be called the *essential*, the former are only the *accidental*, qualities of matter; but they have been commonly designated as Primary and Secondary qualities. Any given substance is capable of exciting in us a variety of sensations, some of which are so clearly referable to the constitution of the person receiving them that we never think of considering them as qualities of the outward object; they vary with different individuals, and with the same individual at different times. They are effects produced on our nervous organization by certain properties of the outward body which we know but imperfectly; or not at all. Others *seem* to belong to the object, inasmuch as we find it difficult or impossible to represent or image that object without them; but a little reflection satisfies us, that, at least in the form in which they are manifested to us, they are affections of the senses and the percipient mind, proceeding from some peculiarities of the thing perceived, the operations of which we can but obscurely conjecture. Others, again, necessarily belong to the object, as we are convinced both from the mode in which they are perceived, and from the fact that they are essential to our notion of any material substance, for, being abstracted, nothing is left.

This distinction of the real from the apparent, or of the objective from the subjective, properties of matter, was recognized by philosophers at an early day, though Descartes and Locke usually have the credit of having first expounded it at length, and with considerable precision. Most subsequent writers have simply borrowed it from them, without attempting to explain the distinction any farther, or to render the classification complete, so that all the properties of matter

should be arranged under one head or the other. Some attributes have remained in dispute, whether they should be considered as primary or secondary, the principle of distinction not being clearly defined. This omission to complete the work is the more remarkable on the part of Reid and his followers, since, upon their doctrine of immediate perception, outward things are known to us as they really exist, and therefore we ought to be able sharply to distinguish those qualities which are really inherent in them from those which are merely reflected back upon them by the effects produced on our senses. Hamilton has attempted to supply this defect; and the classification which he offers is certainly more precise and complete, whatever may be thought of its correctness, than any which preceded it.

He differs from other philosophers, first, by proposing three classes instead of two, calling them respectively Primary, Secundo-primary, and Secondary. Under the first head are ranked those qualities which are *essential* to our notion of body, any one of which being abstracted, the notion itself disappears, or body becomes incogitable. These may all be deduced from the single property of *occupying space*, or rather from the two elements which this notion includes, — first, of *geometrical solidity*, or a threefold extension in length, breadth, and depth, and second, of *physical solidity*, or impenetrability, the property of excluding any other body from the space thus occupied. As these two qualities are viewed in different aspects or relations, six others may be deduced from them *a priori*, by a necessity of thought, or without any further empirical knowledge of the object. Thus, geometrical extension, if limited or definite, as it must be in the case of any particular body, obviously implies *divisibility*, *size*, and *shape* or *figure;* and the physical quality of solidity or impenetrability implies *mobility* and *position*. From *size* again, (if we think of the quantity of space occupied in relation with the quantity of matter occupying,) we have the additional attribute of *density* or *rarity*. We have eight qualities, then, which are rightly called Primary, since they must belong to the object as it exists, and not merely as it is perceived.

The Secundo-primary qualities may all be comprised under

the single category of *resistance*, or *pressure;* they are only forms of measurable or superable resistance to displacement. They may be deduced from the three leading properties of *attraction* (comprising gravitation and cohesion,) *repulsion*, and *inertia.* According as bodies are compared with each other in these three respects, they are distinguished as heavy or light, hard or soft, brittle or tough, elastic or inelastic, movable or immovable, &c.; — a complete list would evidently be a long one. They are not Primary qualities, because they are not essential to our notion of body, which can evidently be conceived without them. On the other hand, they are not Secondary, because they suppose the Primary qualities, and are therefore objective attributes, or real properties of the thing as it exists; they are not imputed sensations, or qualities reflected from mind upon external nature. As accidental, and yet objective, they are termed Secundo-primary.

But Secondary qualities are true subjective affections, and are no farther inherent in the external object than as this is so constituted as to affect our nervous organization in one way rather than another. Certain cutaneous sensations are produced when a foreign body is brought in contact with the skin, such as sneezing, titillation, and shuddering, which we never think of attributing to the body, except as contact with it is the cause of them. In like manner, pleasure and pain are properly limited to the percipient subject affected by them, and are not projected, as it were, beyond consciousness. A little reflection shows that the case is precisely similar with the proper affections of the several senses, such as colors, sounds, tastes, and smells. The nervous organization of the eye, ear, or nose, — not the specific qualities of the stimulus which is applied to it, — determines the character of the sensation. Any kind of stimulus, if powerful enough, calls forth from the affected nerve its one peculiar sensation, — sometimes momentary, sometimes continuing long after the object or cause is withdrawn. A blow on the eye, or even on the back part of the head, may give as vivid a sensation of light as sudden exposure to the sun. Diseased nerves may call up many of these sensations, without the presence of any external stimulus. These Secondary qualities being very nu-

merous, and most of those which belong to the same class being shaded into each other by imperceptible degrees, an enumeration of them is unnecessary.

We cannot dwell longer on these Dissertations supplementary to Reid. Our sketch of them, though exceedingly imperfect, is enough to show that they form a curious and important addition both to the history and the theory of mental science. They relate almost exclusively to the philosophy of perception, a Dissertation upon the doctrine of mental suggestion or association being left unfinished. For the author's views upon the other great questions in philosophy, we must look to the republication of his articles from the Edinburgh Review, with its copious appendices and notes, the new matter being about half as much as the old. These articles, on their first appearance, attracted much notice, especially on the Continent of Europe, where they were translated into French, German, and Italian, and made the subject of considerable commentary. In this country, also, they have not passed without remark by the few who have given any attention to metaphysical science. This notice was the more complimentary, inasmuch as Sir William had not courted it by arraying his speculations in any attractive garb. His style is vigorous and expressive, but void of ornament; the sentences are packed with meaning, and the argument expressed almost with algebraic conciseness, so that a painful effort of attention is needed to follow the train of thought. The numerous divisions of the theme often reduce it to the dryness of a catalogue, and the frequent use of technicalities gives the page a forbidding appearance. But in spite of this rugged manner, the writer's strong grasp of the subject, and comprehensive exposition of it, united with his clearness of thought and vigor of reasoning, enforce the attention of the reader, though they may not always command his assent.

Of the sixteen essays here reprinted, six are devoted to philosophy, eight to education, and only two to general literature. The first appendix, or Supplementary Dissertation, now first published, gives a very brief sketch of the fundamental points of the writer's system of philosophy, which he calls the philosophy of the Conditioned, in distinction from that of the Ab-

solute. The scheme is a very bold one, as it professes to give an alphabet of thought, or a complete list of the conditions under which alone thought is possible. Its conclusion is an avowal, not of scepticism, but of ignorance and impotency. We *must* believe what we cannot understand, and cannot represent in thought, even as possible. But a sharp distinction is taken between what is impossible in itself, or from the nature of things, and what is impossible only to thought. The latter we may be compelled to accept as a fact, without finding ourselves thereby involved in a contradiction. Thus, there may be two contradictory propositions, one of which, under the rule of excluded middle, must be true; yet the truth of either is absolutely inconceivable, because they both transcend the conditions under which alone thought is possible. Of pure space, for instance, we cannot represent to ourselves either the absolute limitation or the infinite extension. Place the boundary of space where we may, even in thought, we cannot help recognizing the possibility of extending it farther. On the other hand, the infinite in extension equally passes the bounds of our faculties; if we attempt to construe it in thought, it becomes either the indefinite or the finite. Yet, of these two contradictory propositions, one must be true, either that space has a limit, or it has not. One of them must be accepted, though both are incogitable.

Without attempting to follow Sir William Hamilton in his attempted enumeration of all the conditions of thought, which could not be done without borrowing his language, we will consider only, as an illustration of his doctrine, the application which he has himself made of it, to the problem respecting the principle of causation. The problem may be thus stated: Every change, every phenomenon which begins to exist, compels us to believe it had a cause, — some agency or power in action which determined it to be. This is not a particular judgment, or one founded on experience; — in fact, experience, (so far, at least, as the outer world is concerned,) does not make known to us a single true cause. It shows only a succession of events, but nowhere reveals the link which binds them together, or their necessary dependence, one upon another. Yet we unhesitatingly affirm of every event, that

it must have a cause, or that it could not take place without some determining agency. Why do we so affirm? What is the ground for this judgment, thus imposed upon us by the very constitution of our nature, that nothing can begin to be without a cause?

According to our author, seven different answers may be, and actually have been, proposed to this question. Four of these are based on experience, or affirm that the causal judgment is acquired, being derived from observation, either of outward events, or of the phenomena of our own minds; the other three regard it as an *a priori* cognition, or law of thought. The *first* opinion, that we are able to detect the efficient causes which govern the succession of events, even in the outer world, the true *nexus* or bond of union between the phenomenon and its cause being exposed to our observation, though it continues to be the belief of the vulgar, is now generally abandoned by the learned. It was rejected even in our statement of the problem, so that we need not dwell upon it here. The *second* opinion, which refers the judgment of causation to our mental experience, or to consciousness of the power of volition over our acts, is rejected by Sir William Hamilton, but, as we maintain, for insufficient reasons. The discussion may be postponed, however, till we have considered the other theories, one of which he adopts. The *third* explanation of the phenomenon refers it to induction, and affirms that we obtain our knowledge of causation in the same way by which we trace out other recondite laws of nature. We have repeatedly observed that two events happen in immediate connection with each other; we have never observed the one except in its union with the other. We infer, then, that they are necessarily connected with each other; and farther observation bringing to view a multitude of such instances, we generalize the fact into a law of nature. But this theory is logically absurd, because more is collected in the conclusion than was distributed in the premises. We cannot affirm, on any occasion, that *all must be*, because *some are*. On this theory, it would be perfectly competent for us to say, that an event which happens to have remained as yet unobserved by us, *may* take place without a cause. But our judgment of

causality denies this; it affirms that every phenomenon *must* have a cause. The *fourth* theory, which seeks to resolve the whole difficulty into the influence of custom or habit, amounts nearly to the same thing, and is equally unsatisfactory. "The customary never reaches, never even approaches, to the necessary. Association may explain a strong and special, but it can never explain a universal and absolutely irresistible, belief. On this theory, also, when association is recent, the causal judgment should be weak, and rise only gradually into full force, as custom becomes inveterate. But we do not find that this judgment is feebler in the young, and stronger in the old."

All the theories which are based on experience being thus adjudged insufficient, let us examine those which give an *a priori* origin to our idea of cause, or resolve it into a law of our mental constitution. The first of these, or the *fifth* theory in the full series, considers the causal judgment as a primary revelation to the intellect, or an ultimate principle, the genesis of which does not admit of explanation. This opinion is adopted by Reid, Kant, Stewart, and Cousin; and it is now more generally received than any other. But as ultimate principles are not to be multiplied without necessity, this theory cannot be accepted till all modes of explaining the phenomenon are proved to be unsound. We speak of *all* explanations, because, in truth, this theory is no explanation at all. It only states the fact, that the causal judgment is necessary, and asserts that it is also primitive, only because we cannot explain its origin. This opinion, moreover, is sceptical; and, in so far as it is sceptical, it is insufficient. The question is, *How* do we know that a cause is necessary for every event? and the answer, according to this theory, is, that *we do not know it*, but by a necessity of our nature, we are compelled to believe it. Whether this belief has any objective validity, whether one event is really caused by another in the way in which we are compelled to believe, is what the theory not only does not attempt to prove, but asserts to be incapable of proof. We need not dwell upon the *sixth* system, as it is only an endeavor to demonstrate by abstract reasoning, or upon the principle of contradiction, what is asserted in the causal

judgment. The attempt is vain, because our knowledge of causation is not involved or implied in any higher act of judgment or self-evident proposition, from which it can be deduced by analysis. The reasoning which would trace it to any higher principle is now universally admitted to be inconsequent.

We come, then, to Sir William Hamilton's own theory, as the *seventh* opinion that can be formed upon this difficult subject. He resolves our positive affirmation, that every event must have a cause, into a mere negation, or a result of the incompetency of the thinking faculty. We cannot conceive, we cannot even think, an absolute commencement of existence. The causal judgment is but one form of the universal maxim, *e nihilo nihil fit.* Because we cannot imagine, or in any way construe to thought, that something should be created out of nothing, whenever a new phenomenon appears, we are constrained to believe that it did really exist, prior to this manifestation of it, under other forms. "But to say that a thing previously existed under different forms, is only to say, in other words, that a thing had causes." If the event be an isolated one, — that is, if it be not observed in immediate connection with another event, or in a line of successive phenomena, — we are still compelled to imagine that it did not then really begin to be, but that it previously existed under some unknown form; that it had an occult cause. But if two events are observed in direct succession, as antecedent and consequent, we conceive that the latter is but a repetition, or in other words, an effect, of the former.

But this is only one pole of the doctrine to which we are led by the mere impotence of the thinking faculty. Not only are we unable to conceive an absolute commencement, but we cannot think out an absolute *non-commencement*, or a succession of causes and effects stretching back to infinity. The doctrine of fatalism — in the rigid form in which alone it is presented by consistent thinkers, like Spinoza and Fichte — is just as inconceivable, just as impossible to thought, as the doctrine of free-will. We are alike unable to think that the world ever had an absolute beginning, or that it never began to be.

"What is our thought of creation? It is not a thought of the mere springing of nothing into something. On the contrary, creation is conceived, and is by us conceivable, only as the evolution of existence from possibility into actuality, by the fiat of the deity. Let us place ourselves in imagination at its very crisis. Now, can we construe it to thought, that the moment after the universe flashed into material reality, into manifested being, that there was a larger complement of existence in the universe and its author together, than, the moment before, there subsisted in the deity alone? This we are unable to imagine. And what is true of our concept of creation, holds of our concept of annihilation. We can think no real annihilation, — no absolute sinking of something into nothing. But, as creation is cogitable by us, only as a putting forth of divine power, so is annihilation by us only conceivable, as a withdrawal of that same power. All that is now *actually* existent in the universe, this we think and must think, as having, prior to creation, *virtually* existed in the creator; and in imagining the universe to be annihilated, we can only conceive this, as the retractation by the deity of an overt energy into latent power. In short, it is impossible for the human mind to think what it thinks existent, lapsing into non-existence, either in time past or in time future." *Discussions.* pp. 592 – 593.

The material universe is conceived as existent in space; events take place, or exist, in time. The equal impossibility of conceiving, and of denying, the infinity of space and time, gives rise to the contradictions which Kant calls "the antinomies of pure reason." There are four such antinomies stated by Kant; each consists of two propositions contradictory of each other; and he demonstrates both. Of course, the proof of one is a demonstration of the falsity of the other; yet the other is also demonstrated to be true. Thus far, then, Hamilton's doctrine is only a repetition of Kant's; the former only changes the order of the proofs. Kant demonstrates that the contradictory propositions are both true; Hamilton demonstrates that they are both, in our apprehension of them, false, — borrowing, for this purpose, Kant's proof of the opposite doctrine. The example, which we have just given, of the application of his system to the opposite doctrines of fatalism and free-will, is one of the antinomies of the German philosopher; and the reasoning in the two cases is the same. But here the two systems diverge. These contradictions drive

Kant into sheer scepticism; he affirms that no metaphysical science is possible, and that the doctrines of ontology and speculative theology are self-contradictory and absurd. Hamilton tries to struggle out of the abyss, by converting a real negation into an apparent affirmative; by evoking a substantive *power* out of a mere *incompetency* of the intellect; by resolving our positive affirmation of a cause into our inability to conceive of any absolute beginning of existence. The two contradictory propositions are not false, but they are impossible to thought. Because they are contradictory, one of them *must* be true; but the reasoning faculty alone cannot decide *which* is true, or *how* it can be true. Some things may be possible in themselves, or may be real existences, though they are impossible to thought; in other words, what is incogitable is not necessarily non-existent. Going back to the problem or causation, he maintains that our mere consciousness of moral liberty cannot be allowed to contradict the positive law of intelligence, that nothing can absolutely begin to be, and consequently, that there can be no independent cause — no cause which is not at the same time an effect of something else. The one consciousness being just as strong as the other, there is no reason for subordinating one to the other; and if consciousness be allowed to contradict itself, all its affirmations are discredited, and we have no refuge against complete scepticism.

"But the doctrine which I propose is not obnoxious to these objections. It does not maintain that the judgment of causality is dependent on a *power* of the mind, imposing, as necessary in thought, what is necessary in the universe of existence. On the contrary, it resolves this judgment into a mere mental *impotence*, — an impotence to conceive either of two contradictories. And as the one or the other of contradictories must be true, whilst both cannot; it proves, that there is no ground for inferring a certain fact to be impossible, merely from *our inability to conceive it possible.* At the same time, if the causal judgment be not an express affirmation of mind, but only an incapacity of thinking the opposite; it follows, that *such a negative judgment cannot counterbalance the express affirmative, the unconditional testimony of consciousness, — that we are, though we know not how, the true and responsible authors of our actions*, not merely the worthless links in

an adamantine series of effects and causes. It appears to me that it is only on such a doctrine that we can philosophically vindicate the liberty of the human will, — that we can rationally assert to man — 'fatis avolsa voluntas.' *How* the will can possibly be free, must remain to us, under the present limitation of our faculties, wholly incomprehensible. We are unable to conceive an absolute commencement; we cannot, therefore, conceive a free volition. A determination by motives cannot, to our understanding, escape from necessitation. Nay, were we even to admit as true, what we cannot think as possible, still the doctrine of a motiveless volition would be only casualism; and the free acts of an indifferent, are, morally and rationally, as worthless as the pre-ordered passions of a determined, will. *How*, therefore, I repeat, moral liberty is possible in man or God, we are utterly unable speculatively to understand. But practically, the *fact*, that we are free, is given to us in the consciousness of an uncompromising law of duty, in the consciousness of our moral accountability; and this fact of liberty cannot be redargued on the ground that it is incomprehensible, for the philosophy of the conditioned proves, against the necessitarian, that things there are, which *may*, nay *must* be true, of which the understanding is wholly unable to construe to itself the possibility."

Discussions. pp. 596 – 597.

This system is certainly an ingenious one, and it is supported with great subtlety of reasoning, — to say nothing of the long string of authorities, from Democritus to Scaliger, which, *more suo*, Hamilton cites to prove that the consummation of knowledge is a confession of ignorance, and that "the grand result of human wisdom is only a consciousness that what we know is as nothing to what we know not." But we cannot admit that the system is satisfactorily made out, or that it differs very widely from the scepticism which it professes to shun. We object to the first step in its application to our judgment of causality. Our philosopher seems to confound *being* with *doing*, or existence with causation. But can we not easily conceive of passive or inert existence? And is not this precisely our notion of matter, as opposed to mind? He resolves our necessity of thinking that every event has a cause, into our inability to believe that something can be created out of nothing. It would be better to reverse the process; the causal judgment is the more comprehensive one of the two, and the maxim, *e nihilo nihil fit*, is but an inference

from it, or an application of it to a particular case. It is surely more natural to say, that *something* (i. e. some being) cannot be created out of nothing, because *every* thing (i. e. beings and events) must have a cause, than to make the premise and the conclusion change places with each other. And we cannot see that much progress is made towards the solution of the problem by this reasoning, however stated. The two propositions being equally undeniable, the question of logical or chronological priority between them is one of no importance.

The system is faulty, again, because, instead of explaining the connection of cause and effect, it boldly identifies the cause with the effect, and thus falsifies the conditions of the problem. If we believe the phenomenon must have a cause, only in order to avoid believing that the sum of existence is actually increased, then the cause and the phenomenon are really the same existence, — and no change, no event, has taken place. Sir William's doctrine explains only continuity of existence, not causation. Even his language shows hesitation and uncertainty here. Unwilling explicitly to say, that the cause is precisely the same thing with the phenomenon, he affirms only that "the elements of its existence" are the same, that the cause is only the phenomenon itself, which "did really exist prior to [its manifestation] *under other forms*." But this will not help him any; for a change *in appearance* is just as inexplicable as a change *in reality*. It is still a change, an event, and as such, it must have a cause. "The elements of its existence" are now differently combined; or, the same existence now appears "under other forms;" or, at any rate, the phenomenon *now first* manifests itself *as such*, or in its proper shape. What was it, which combined the elements anew — or gave them a different form — or allowed the former occult existence to become manifest? The theory is evidently at fault here, and just where it is most wanted.

But the great vice of the theory is, that it ignores altogether the notion of *power* or *force*, though this is a necessary element of our idea of causation. The impossibility of thinking the sum of existence to be either absolutely increased, or absolutely diminished, can explain, at the utmost, only the *juxtaposition* (so to speak) of causes and effects. It cannot

prove more than the necessity of thinking that the succession of phenomena is continuous — without break before or after — each one being only a disguised repetition of its predecessor — and not one either really beginning to be, or really ceasing to exist. It cannot prove or explain (what we are still obliged to believe) that each phenomenon is really produced or evolved by some exertion of force — some power in action. If causation is any thing more than invariable succession — and Sir William sharply criticises Dr. Thomas Brown for maintaining that it can all be reduced to this, thus "quietly eviscerating the problem of its sole difficulty" — then the phenomenon not only apparently *begins to be*, but we necessarily assume that *force* was exerted, which determined it to be what it is, and not something else. Otherwise, how came we by our notion of *power*, or active agency? Will our author avowedly resolve this notion, also, into an *impotency* of thought?

Finally, we cannot accept this theory, because we find no valid objection to the *second* opinion stated in our author's list, which refers the origin of our causal judgment to a distinct self-consciousness of the efficiency of our own volitions. This is the theory the consideration of which we postponed, in order to bring it up here in more immediate contrast with Sir William Hamilton's system. That we may not understate the objections which have been made to it, we will give them in his words.

"There are many philosophers who still adhere to the second opinion; — a theory which has been best stated and most strenuously supported by the late M. Maine de Biran, one of the acutest metaphysicians of France. I will to move my arm, and I move it. When we analyze this phenomenon, says De Biran, the following are the results: — 1°, the consciousness of an act of will; 2°, the consciousness of a motion produced; 3°, the consciousness of a relation of the motion to the volition. And what is this relation? Not one of simple succession. The will is not for us an act without efficiency; it is a productive energy; so that, in a volition, there is given to us the notion of cause; and this notion we subsequently project out from our internal activities into the changes of the external world. But the empirical fact, here asserted, is incorrect. For between the overt fact of corpo-

real movement, which we perceive, and the internal act of the will to move, of which we are self-conscious, there intervenes a series of intermediate agencies, of which we are wholly unaware; consequently, we *can* have no consciousness, as this hypothesis maintains, of any causal connection between the extreme links of this chain, that is, between the volition to move and the arm moving. (See Dissertations on Reid, p. 866.)

"But independently of this, the second objection is fatal to the theory which would found the judgment of causality on any empirical apprehension, whether of the phenomena of mind or of the phenomena of matter. Admitting the causal efficiency to be cognizable, and perception with self-consciousness to be competent for its apprehension, still as these faculties can inform us only of individual causations, the quality of necessity and consequent universality by which this judgment is characterized, remains wholly unexplained." *Id.* pp. 587 – 588.

The passage referred to in the Dissertations on Reid is the following.

"Volition to move a limb, and the actual moving of it, are the first and last in a series of more than two successive events; and cannot, therefore, stand to each other, immediately, in the relation of cause and effect. They may, however, stand to each other in the relation of cause and effect, mediately. But, then, if they can be known in consciousness as thus mediately related, it is a necessary condition of such knowledge, that the intervening series of causes and effects, through which the final movement of the limb is supposed to be mediately dependent on the primary volition to move, should be known to consciousness immediately under that relation. But this intermediate, this connecting series is, confessedly, unknown to consciousness at all, far less as a series of causes and effects. It follows, therefore, a fortiori, that the dependency of the last on the first of these events, as of an effect upon its cause, must be to consciousness unknown. In other words, — having no consciousness that the volition to move is the efficacious force (power) by which even the event immediately consequent on it (say the transmission of the nervous influence from brain to muscle) is produced, such event being in fact itself to consciousness occult; *multo minus* can we have a consciousness of that volition being the efficacious force by which the ultimate movement of the limb is mediately determined." Reid's *Works*. pp. 866 – 867, note.

We admit the facts as here stated, and still deny that the doctrine of M. de Biran, when properly stated, is at all affected

by them. Hamilton assumes that the efficiency of the volition is recognized only because the effect — the movement of the limb — actually follows. Our position is, that the efficiency of the volition is immediately recognized, because we are directly conscious that the volition tends toward the movement — exerts an effort, or expends power for it — and, therefore, accomplishes *something*, though it may not accomplish *all*, that we intended. The limb may refuse to move, either from a paralysis of the nerves, or from the weakness of the muscles. But this does not prove that *no* power was exerted, but only that the particular modicum of power was insufficient for the whole end in view, and was, therefore, apparently, spent in vain. It was not *really* wasted. If a laborer, who is capable of lifting only six hundred pounds, strives to raise a rock weighing a thousand, no effect seems to follow; the rock does not move. But he is conscious of having put forth a great effort to move it; and, *as power in action is necessarily causal or causative*, an effect was truly produced, — as would be seen if a power in aid were exerted, for the rock would then rise under an additional force equal to only four hundred pounds. Mr. Mill justly remarks, that, "in those sciences of causation which have an accurate nomenclature, there are special words which signify a *tendency* to the particular effect with which the science is conversant. Thus, *pressure*, in mechanics, is synonymous with tendency to motion, and forces are not reasoned upon as causing actual motion, but as exerting pressure."

Sir William Hamilton's own analysis of the action of the will in determining motion might have convinced him of his error. In this action, he rightly distinguishes three things.

"1°. The still immanent or purely mental act of will: what for distinction's sake I would call the *hyperorganic* volition to move; — the *actio elicita* of the schools. Of this volition we are conscious, even though it do not go out into overt action.

"2°. If this volition become transeunt, be carried into effect, it passes into the mental effort or *nisus* to move. This I would call the *enorganic volition*, or, by an extension of the scholastic language, the *actio imperans*. *Of this we are immediately conscious. For we are conscious of it, though by a narcosis or stupor of the sensitive nerves we*

lose all feeling of the movement of the limb; — though by a paralysis of the motive nerves, no movement in the limb follows the mental effort to move; — though by an abnormal stimulus of the muscular fibres, a contraction in them is caused even in opposition to our will.

"3°. Determined by the enorganic volition, the cerebral influence is transmitted by the motive nerves; the muscles contract or endeavor to contract, so that the limb moves or endeavors to move. This motion or effort to move I would call the *organic movement*, the *organic nisus;* by a limitation of the scholastic term, it might be denominated the *actio imperata.* pp. 864, 865, note.

It is in this *third* element — the *organic* nisus and the *organic* movement — that Sir William seeks for evidence of the efficiency of the will, and rightly declares that it cannot be found. We agree with him. "Between the extreme links of *this* chain, — that is, between the volition to move, and the arm moving," he says, "there intervenes a series of intermediate agencies, of which we are wholly unawares." How mind operates upon matter, — even upon the matter of our own bodies, with which we are so intimately connected, — we do not know. How the action of the will is communicated to the muscles, — whether by one, two, or three intermediate steps, — we do not know.

But we find proof of the efficiency of volition in the *second* of our author's three elements, where his language, which we have italicized, is so explicit that it seems strange the conclusion could have escaped him. By the "*enorganic volition*," we understand neither "the still immanent or purely mental act," nor yet the organic *nisus* or movement which is wholly exterior to the mind, but the transeunt act from one to the other, *the command*, whether it is obeyed or not; — and of this enorganic movement, "we are immediately conscious," though the limb may be paralyzed. It is *action*, of which we are here conscious; otherwise, the "purely mental act of will" could not have "become transeunt." We are conscious of an *effort* in this act — conscious of *putting forth power* — conscious of *attempting* to move the muscles, whether they obey or not. The laborer is not more clearly conscious that he has *tried* to raise the rock. It is certain, also, that power in action is necessarily causative; it forms our only idea of causation.

It *must* produce an effect, though perhaps not the whole effect which we desire. The pressure is not lost, though the rock does not move. We have, then, the direct evidence of consciousness, — of that faculty not one of whose dictates can be impeached, — that the will is a true cause — an efficient cause, not a mere antecedent — a *limited* cause, indeed, but supreme within its proper domain — not always *suf*ficient for the end proposed, but always *ef*ficient, or expending force, which is real, though often inadequate. It was from overlooking this distinction, and confounding sufficiency with efficiency, that the question has been so much perplexed. We have here all the marks or tests, by which efficient causation is distinguished from mere antecedence. In the case of material phenomena, the result can be ascertained only by experience; we learn only by trial, that one substance is soluble, and another not, — that iron expands, and clay contracts, in the fire. But in the case of mental exertion, the result to be accomplished is *preconsidered*, or meditated, and is therefore known *a priori*, or before experience; the volition succeeds, which is a true effort, or power in action; and this is necessarily followed by an effect, partial or complete.

The first of Sir William Hamilton's objections to this theory, (the second on his list,) seems then to be completely obviated. His only remaining argument is more easily disposed of. He objects, secondly, that as the faculties of perception and self-consciousness "can inform us only of *individual* causations, the quality of *necessity* and consequent *universality*, by which this [causal] judgment is characterized, remains wholly unexplained." But we trace this quality of necessity to our intuitive appreciation of the fundamental and essential distinction between matter and mind, — to the first act of self-consciousness by which the *me* is distinguished from the *not-me*. In that primitive cognition, we are directly conscious of the *me* as essentially active, and the *not-me* as essentially inert or passive. This is the necessary antithesis which the thinking being establishes between himself and the outward world, just as soon as he arrives at a consciousness of either. He necessarily attributes power and activity to himself, for he cannot even imagine, he cannot even think, himself deprived

of power, or, what is the same thing, of will; for in our analysis, the two things are identical. Imagine yourself, if you can, deprived even of the power to will; you cannot do it. Outward restraint is nothing; bars and fetters cannot bind the soul. Paralysis is nothing; we can yet *will* to move the limb, though it remains fixed. The effort may be powerless, but it is still an effort, and can always be made. You cannot cease to be conscious of a power to will, without ceasing to be conscious of yourself.

Now, the outward world first manifests itself to us as an obstacle, a limitation, a resistance to be overcome. Our first consciousness of its existence is a perception of its inertness, or want of power, — its essential passivity. We cannot cease to be conscious of this quality in it, without losing consciousness also of that which renders it different from ourselves. Every thing which is foreign to the perceiving mind is perceived to be in antagonism with it; as the one is known only under the conditions of life and activity, the other is recognized only as dead and motionless. It is essential to the one to move, and to the other to be moved. Because matter is perceived, through its antagonism with mind, to be essentially inert, we say that every change in its state must have a cause, or that mind, the only true energy or source of power with which we are acquainted, must be acting upon it, either from within or without. Because incapable of acting itself, it must be acted upon. We never attribute action to matter, except figuratively; for we cannot even conceive of force or energy, as inherent in it. The fatalist himself is obliged to admit this, and consequently to ignore the idea of power altogether. His favorite metaphor of a chain of causes and effects is, in truth, only a succession of effects. Upon his system, every thing is caused, nothing causes; every thing is moved, nothing moves; power is transmitted, as it were, from one event to another, each one being compelled or necessitated by that which preceded it, and in its turn compelling its consequent; and yet this power, thus transmitted, and thus enforcing the law of necessity, has its origin nowhere. We pursue its fleeting shadow through a series of events, but can never overtake it, for the series is infinite.

As all actual and all imaginable existence must be either identified with the *me*, that is, with *mind*, or considered as foreign to it, that is, as *matter*, it must also be conceived either as essentially active, or essentially inert. Here, then, we find a firm basis for the universal and necessary character of the causal judgment; and our author's second objection proves as baseless as his first.

But our readers are probably anxious, by this time, to get out of the wilderness of metaphysics; and we have no wish to detain them there longer than is necessary to form a tolerably fair estimate of the value of Sir William Hamilton's contributions to philosophy. Though we differ from him in opinion on many subjects, and have ventured to express and defend this disagreement, we cannot think of what he has done to maintain among his countrymen that interest in the study of philosophy, which they have always manifested, without a strong feeling of respect and gratitude. He has done much for the refutation of many hurtful errors, and the general character of his speculations has been favorable to morality and truth.

We must pass hurriedly over his writings upon education, as they relate almost exclusively to the constitution of the English and Scotch Universities, and therefore touch upon many topics with which, in this country, we are but little concerned. Yet he has treated the history and the theory of University education in Europe, but especially in England, with his usual affluence of learning, keenness of criticism, and boldness of remark; and the favorers of liberal studies everywhere may find something to interest them in the results of his researches, and the measures which he commends. The controversy which he evoked, though it seemed for many years to have produced little fruit, was not without effect upon public opinion, and has probably added force and given direction to the present movement in England in favor of University reform. The republication of his Essays, therefore, just as the Commission of inquiry into the state of the University at Oxford had finished its labors, was seasonable; and the long Appendix, which he has added to them, upon "Oxford as it is, and Oxford as it might be," was probably in-

tended to influence the action of the Crown and of Parliament upon that Report. Less antagonistic and minatory in tone than the articles to which it is appended, it still lays bare many abuses and defects, and advocates the most sweeping measures to remedy them. The general views contained in it respecting the management of University education deserve attention and study in every land where liberal studies are held in honor.

In one respect, Sir William Hamilton's position as a reformer is a remarkable one. He appears as the advocate, not so much of innovation, as of restoration. To demonstrate that the actual system pursued at both the English Universities, but especially at Oxford, was a usurpation and an abuse, seemed to him the most probable means of effecting its improvement. Accordingly, the doctrine maintained in his earlier articles upon the subject in the Review, and maintained with great earnestness and an imposing display of curious learning and historical research, was, that the present academical system existed in defiance of the statutes and the intentions of the founders, having been surreptitiously introduced into the University for private ends, though virtually acknowledged to be inadequate to accomplish the purposes of the institution. In its origin it was illegal, and it had been perpetuated by constant perjury and breach of trust. The continuance of the system was incompatible with good faith or any regard for moral obligation; for it made the University a snare for tender consciences, and a school to harden one in the practice of equivocation and false swearing. Such charges, deliberately made, and enforced with a formidable show of arguments and authorities that seemed scarcely questionable, of course, excited great commotion at these venerable seats of learning. The controversy that followed their publication, though not of great length, was of unusual bitterness. Sir William's language was as defiant and contemptuous, as his accusations were severe. We will not say that the occasion did not justify it; but, if he looked only to the beneficial effect to be produced within the University itself, where any reform, to be truly effectual, must originate, it should have been more temperate and conciliatory. As it

was, probably, so much indignation was excited that the facts could not be fairly weighed, and the suggestions were unheeded. Perhaps the writer despaired of convincing the authorities directly of the necessity of a change which would be prejudicial at first to their private interests, and therefore aimed at bringing upon them a pressure from without which should enforce reform. If such was his purpose, the success which he obtained was not flattering. The fever of innovation, which seemed to animate the English people about the time of the passage of the Reform Bill, when Sir William's articles first appeared, and which appeared for a season to menace even the security of the Church, passed away without materially troubling the peace of the Universities. Improvements in details were quietly made, as occasion and the progress of opinion rendered them necessary; but the broad features of the system remain unchanged to this day. It now remains to be seen, whether the great authority of a Commission from the Crown can triumph over the prodigious *vis inertiæ* of these time-honored establishments, and overcome the repugnance to change which has always characterized them.

It may be freely admitted, that institutions endowed partly by the state and partly by private individuals, for the support of education and the encouragement of learning, have an irresistible proclivity to fall behind the demands of the age, — a tendency which necessarily increases with the lapse of years. This is no impeachment at all of the ability and integrity of those who have the immediate direction of them; it is a necessity imposed by the original limitations of their trust, and by the changing circumstances of the times. Donors are not aware of the responsibility which they assume, when they affix permanent conditions to the enjoyment of their gift; and even when time has demonstrated the necessity of a change, it is a delicate proceeding in morals to decree that the money shall be appropriated to other uses, not contemplated by those who gave it. It becomes a serious question, whether restrictions ought not to be put by law upon the power of bequeathing property to be held in mortmain, in order to prevent it from being tied up by directions so specific and minute, that the change of circumstances, in a century or two, will probably

render compliance with them impracticable, or reduce the advantages expected from the gift to a minimum. In England, the omnipotence of Parliament, to say nothing of the large powers vested in the courts of chancery, opens a way for revoking the injudicious provisions of a will or a deed of gift, and turning the endowment from a useless or injurious, to a beneficial, purpose. But in this country, the constitutional provision for the faithful observance of contracts, and the very limited grant of chancery powers to the courts, render it nearly impossible to alter the conditions under which a gift is enjoyed. If one would know to what strange purposes money may thus come to be devoted, or the shifts to which institutions may be driven in order to keep their funds in use, he has only to look at some of the endowments of the colleges at Oxford. Oaths are still taken by lay Fellows which record the ecclesiastical intentions of the founders, and which include a provision that the juror, who is often a student at law, will make theology the end of his studies, and "will never seek for any dispensation from this his oath, nor will accept it, if sought by others, and offered him." Professors, as well as students, still swear faithfully to observe statutes which they have never read, though a compliance with many of them, even if it were practicable, would be forbidden by the college authorities. If the wills of the founders and benefactors of the institution were observed, more masses for the dead would be repeated in a Protestant college than in any Catholic church. Where such things are done, or left undone, it is little to call a University a school for perjury; and we are not surprised to find that the officers and teachers in it consider the oaths which they have taken as a very slight impediment to any alteration or omission which, not necessity, but convenience or indolence, may require. Sir William Hamilton quotes Butler against them, —

> "They swore so many lies before,
> That now, without remorse,
> They take all oaths that can be made,
> As only things of course."

There is another reason why endowed seats of learning generally fail to answer the impatient demands of those who

delight to talk about "the progress of the age." Experiments must not lightly be tried in them; if unsuccessful, the evil done to at least one generation of students is irreparable. The institution itself, considered as an aggregation of instructors and means of learning, has a continuous existence, and may at any time, without great loss, return to a position which it had injudiciously quitted. But a generation of undergraduates continues only four years, so that the introduction of a new system is, for them, a final and decisive measure, less time than this being insufficient to test the merits of the system by experience. There is an old adage about the *experimentum in corpore vili*, which many strenuous innovators might well keep in view.

Yet this plea, and all others which can be urged, are insufficient to justify that blind and indolent adherence to the past which has always characterized the English Universities. They are insufficient, because, to adopt Lord Bacon's phrase, time innovates for the worse, if men do not innovate for the better. An absolutely stationary position cannot be maintained; either progress or retrogression is inevitable. What is illegal and corrupt in the present system at Oxford, as Sir William Hamilton has pointed out, is the silent growth, or rather the silent deterioration, of centuries. What was abandoned was often necessarily abandoned, because a change of circumstances had rendered it no longer practicable; but no exertion being made to fill up the blank which was thus created, the institution was gradually shorn of its ancient means of usefulness, its sphere of effort was contracted, and its influence diminished. One unhappy change, thus silently made, created a necessity for others. An oath to observe the whole body of the statutes was still exacted, though compliance with them in one particular had become impossible; and a habit of careless or false swearing being once formed, the oath ceased to be any barrier to numerous departures from the old system. The Colleges having illegally supplanted the University, as our author maintains, the Professorships became sinecures almost as a matter of course. All instruction falling into the hands of the Colleges, which possessed only very incompetent means of instruction, the sphere

of tuition was necessarily contracted. The University continued to grant degrees in all the Faculties, when it no longer taught in any, and when no public instruction was offered anywhere, except for the lowest degree, or in the Faculty of Arts. So many changes for the worse could not all be made at once, or even in the course of a single century; but one silently and unavoidably brought on another. Abuses were linked together, and perpetuated, not by innovation, but by inaction.

Recognizing these facts, though our author stoutly maintains that the ancient and statutory constitution of the University was far superior to the mutilated fragment of it which now exists, he admits "it would be a rash inference to conclude, that what is old and even statutory is all good, or that what is new and even illegal is all vicious." As his articles first published in the Review were devoted chiefly to historical statements and arguments, to prove that the present University is a vicious and illegal innovation, so, in the Appendix to them, now first published, he endeavors to point out what is desirable for a reform, and how it may be effected; in other words, to show what Oxford is, and what it might be. Before following him, in this discussion, a brief notice of the facts which he professes to have established, by historical evidence, is essential. We review them the more willingly, as they throw much light upon the origin and progress of the European system of University education.

The name *University* does not import, what many falsely suppose, a place where all the sciences are professedly taught, but one to which all persons may be admitted to learn. *Studium generale* was the designation first in use. *University* first signified the whole number of a company or corporation of individuals, united for some common end; as applied to a seminary of learning, it denoted the whole body of teachers and learners. The language, cited by our author, of a great jurist of the sixteenth century, who was Dean of the Law Faculty in three Universities, is decisive on this point.

"Potest dici *studium generale* et *universitas* ratione eâdem, quòd studia quæ ibi tractantur *universis proposita sint*, et sint publica, et

gratis, *volentibus discere*, proponantur ab institutis præceptoribus, sintque privilegia universis studentibus concessa. *Neque ideo minus studia generalia dicentur aut universitates, quod non omnes scientiæ ibi, sed certæ tantùm, tractentur et doceantur. Nam generalitas ad universitatem non pertinet scientiarum, sed ad publicam causam docendi.*"

Tholosanus *de Republicâ.*

We may remark, in passing, that those who are anxious to assimilate our American Colleges to European Universities may be convinced, by this statement, that they cannot obtain their end by simply enlarging the course of studies. Some of these Colleges already profess to give instruction in as wide a range of sciences and languages as was ever taught in an English or Scotch University, either of ancient or modern times. The University, as first constituted, did not give instruction, or grant degrees, even in all the Faculties. It was limited to that which is the foundation of all, — the Faculty of Arts or Philosophy. Professional learning lay beyond its purpose. The Faculties of Theology, Law, and Medicine were added subsequently, and so added as not to appear component parts of the original institution, but rather as convenient appendages to it, and connected with it by only a slender tie. "The University of Paris, like those of Oxford and Cambridge, at first existed only in the lay Faculty of Arts. On this Faculty these great Universities are founded, as in it alone they once existed; and in the two latter, the higher Faculties never were separated, as in the Continental schools, into independent corporations." And because the instruction given was meant to be liberal or general, not professional or specific, — a common foundation, or general training of the mind, preparatory for the special studies appropriate to different pursuits in life, — the instruction given in the Faculty of Arts did not claim to be universal, or to include all the sciences. The censure thrown upon the ancient Universities for their limited courses of study, and for selecting studies which were not practically useful, is, therefore, unfounded. As well might the ancient Greeks be censured for their scheme of physical training, because they sent their youth to the palæstra, where all the muscles of the body were developed by exercises devised for that end alone, instead of putting

them into workshops, where their manual toil would conduce to some useful end, though, in each case, but one arm, or one set of muscles, would come into use. What the Greeks accomplished for the body, the ancient Universities attempted to accomplish for the mind. The subjects taught in them, as well as the exercises prescribed, including disputation and tuition,—for all were obliged to teach, in order to learn,—looked chiefly, if not exclusively, to the general training of mind, not to imparting useful information. They "considered their function of *prelection* as in importance greatly inferior to their function of *exercise;* and among the exercises which they sedulously enforced, that of *disputation*, regular and frequent, was the principal." In this respect, our author strenuously contends, their system was better than the modern one.

"Strange to say, the whole function of a University is now, for the most part, concentrated in the useless office of communicating information; that is, the academical teacher or professor reads to his auditors a course of lectures upon subjects which they, with far greater convenience, might study for themselves in books,—lectures, too, which, were they ever printed, no one would probably ever dream of reading; whilst disputation, (if not every other exercise,) which public seminaries alone can realize, is utterly abandoned, and even unknown. Thus, the Universities of old ably and faithfully discharged their higher and their lower duties; whereas, of late, they attempt, too frequently, only what is of least importance, and attempt this minor duty only through inefficient means. But could disputation, the practical exercise of reasoning, be again restored, (of course in the vernacular of the disputants, and perhaps less limited, than of old, to mere logical form,) I have no doubt that it would constitute an era in academical efficiency. Lord Bacon has indeed recommended this. For whilst testifying that the practice of disputation renders the mind prompt and all-sided, he proposes the establishment of what he calls a College of Controversies. . . . .

"As it is, indeed, and out of school, all profitable study is a silent disputation — an intellectual gymnastic; and the most improving books are precisely those which most excite the reader — to understand the author, to supply what he has omitted, and to canvass his facts and reasonings. To read passively, to learn, is, in reality, not to learn at all. In study, implicit faith, belief upon authority, is worse even than, for a time, erroneous speculation. To read profitably, we

should read the authors, not most in unison with, but most adverse to, our opinions; for, whatever may be the case in the cure of bodies, *enantiopathy*, and not *homœopathy*, is the true medicine of minds. Accordingly, such sciences and such authors as present only unquestionable truths, determining a minimum of self-activity in the student, are, in a rational education, subjectively, naught. Those sciences and authors, on the contrary, which constrain the student to independent thought, are, whatever be their objective certainty, subjectively, educationally, best." *Discussions.* pp. 681, 682.

As Sir William Hamilton's authority, both from his long academical experience, and his high standing as a scholar and a philosopher, is very weighty in this matter, we gladly borrow other portions of his remarks upon the same subject. The prevalent opinion in this country, and the practice in our Colleges, are just the opposite of what he recommends.

"A University in ordinary, and in ordinary acceptation, involves two very different things: — involving 1°, what is properly the University, a school, to wit, for liberal or general knowledge; and 2°, a collection of special schools, for one, two, three, or more of the learned professions. In the former respect, the student *is considered, as an end unto himself;* his perfection, as a man simply, being the aim of his education. This is the end proposed in what is academically known as the Faculty of Arts or of Philosophy. In the latter respect, the learner *is not viewed as himself an end,* that end being now something *out of himself;* for not his perfection as a man, but his dexterity as a professional man, — in a word, his usefulness as an instrument, has become the aim of his scientific preparation. This end is that proposed in, what are academically known as, the Faculties of Theology, Law, Medicine, &c.; and in this relation, a University is, in fact, only a supplemental and contingent aggregation of special schools, the only connection that these have with each other, or with the University, being, that they all hold out to be *liberal,* that is, they all hold out to educate to professions which presuppose always a liberal accomplishment, if not always an education in the liberal faculty, or faculty of arts. In certain universities, indeed, and in certain of their professional faculties, a degree is now given without a liberal education; but in these cases, the profession has ceased to be liberal or learned, and the instruction by the academical faculty is really that of a mere special school. . . . . .

"As knowledge (man being now considered as an end to himself) is only valuable as it exercises, and by exercise develops and invigor-

ates the mind, so a University, in its liberal faculty, should specially prefer those objects of study which call forth the strongest and most unexclusive energy of thought, and so teach them, too, that this energy shall be most fully elicited in the student. For speculative knowledge, of whatever kind, is only profitable to the student, in his liberal cultivation, inasmuch as it supplies him with the object and the occasion of exerting his faculties; since powers are only developed in proportion as they are exercised, that is, put forth into energy. The mere possession of scientific truths is, for its own sake, valueless; and education is only education, inasmuch as it at once determines and enables the student to educate himself. Nor is there time to lose. In fact, it is now or never; for, as Rousseau truly says, — "L'inhabitude de penser dans la jeunesse en ôte la faculté durant le reste de la vie." The objects of knowledge, which combine more entirely this end with the first, ought thus to be the principal branches of primary academical education." *Id.* pp. 672, 673, 677.

A University, as originally constituted, was a *national* establishment, and even something more; it was open to all the world. It did not profess to teach all sciences, but it did profess to teach all students, the teachers and the taught being united into one corporation, and frequently interchanging their respective functions. It was a place of great resort, especially during the Middle Ages, when books were scarce and dear, when the learned had a common language, and nearly all instruction was necessarily oral. In the middle of the thirteenth century, it is said, there were thirty thousand scholars at Oxford; and though this statement has been doubted, there is good evidence that the number at times exceeded fifteen thousand. The University probably dispensed about all the formal education that was given in the kingdom; students certainly entered it at an earlier age, and remained there much longer, than is common in later times. These numerous students taught each other, there being no separate body of salaried teachers or professors. A degree was a formal permission to teach, the sphere of tuition corresponding to the rank of the degree. Evidence of this fact has come down to the present day, in the form of graduation, the Bachelor or Master receiving a book, "together with the power of publicly expounding it." The Bachelors, indeed, read lectures,

under the supervision of a Master or Doctor, mainly as an exercise useful to himself, but partially because it was advantageous to others. "The Master, Doctor, or perfect graduate, was obliged immediately to *commence* (*incipere*), and to continue for a certain period, publicly to teach (*regere*) some, at least, of the subjects appertaining to his Faculty." But the period of necessary regency was soon abridged, and dispensations were commonly allowed to those who were unwilling to lecture. As the body of graduates gave all the tuition, they also had the government or management of the University, and, to a certain extent, at Oxford and Cambridge, have retained it to this day. They assemble in a Senate, or House of Convocation, to confirm the laws that are proposed, or to approve the degrees which are to be given; a distinction between *regent* and *non-regent*, now applied to "resident" or "non-resident" Masters and Doctors, marks a difference in their privileges. The teaching graduates, receiving a fee from every one who attended their lectures, were engaged in active competition with each other; according as their teaching became more popular and effective, the number of their students and their emoluments increased.

Such, in reference to its plan and means of instruction, was an ancient University, — a disorderly and often tumultuous body, but instinct with life and activity, and efficient for the end proposed. The great concourse of students occasioned a scarcity of lodgings and exorbitant demands for rent. To protect them from undue exaction, and also to guard their manners and their morals, as many of them were of tender years, a regulation was adopted compelling them to live together in licensed Halls or Hostelries, under a Principal or Rector, elected by themselves, and subject, at all times, to the discipline and supervision of the University. The buildings were generally hired for the purpose, and the establishments differed but little from licensed boarding-houses. Five centuries ago, there were over three hundred such Halls at Oxford.

The poverty of the greater part of the students, and the disposition of pious and benevolent persons to take measures for their relief, gradually brought about a series of changes. Seats of learning have abounded with "poor scholars" in

every age; those students who are now living upon a pittance may console themselves with the reflection that they are no worse off than their predecessors. First, to relieve them from the charges for tuition, funds were contributed to pay fixed salaries to a number of lecturers, who then taught gratuitously. These salaried teachers soon received the title of Professors, and attendance on their lectures was made essential for obtaining a degree. Their services enabled the University to relieve the great body of the graduates from the obligation to teach; and though the right of every graduate to lecture remained entire, its exercise was generally abandoned. Yet the continuance of the right was not without good effects; it exposed the Professors to be met at any time by formidable competition, and they were thus prevented from slumbering at their posts.

Thus far, the condition of the poor students was considerably ameliorated; but food, clothes, and lodging expenses remained to be provided for, and as the University was a nursery of the Church, the piety of the faithful was stimulated to procure farther relief for them. Colleges were established, or eleemosynary foundations for the express purpose of maintaining indigent scholars at their studies. In each of these establishments, a certain number of students, depending on the amount of funds, received board and lodging gratis, and a small stipend to defray their other expenses. The benefaction was not confined to undergraduates. According to the practice of those days, the first, or Bachelor's, degree marked only the earliest stage of a University education; Bachelors, Masters, and Doctors still continued in residence, both to teach and to learn. The *Fellows*, so called because they participated equally in the endowment, were the graduates who were supported by the College; stipendiaries who had not yet passed their first degree, were usually denominated *Scholars*, though they were also known under other names. The College existed only for the support of these beneficiaries; it was not obliged to receive any other members than those "on the foundation." All Souls College, at Oxford, remains in this condition to the present day; it has no undergraduates, all its members being Fellows. But the

other Colleges, for their own convenience, and to increase their funds, gradually opened their doors to paying students, or independent members. In view of the youthfulness of the Scholars, they were placed under the domestic superintendance and private discipline of one of the Fellows, who was appointed their Tutor, and required to teach them the rudiments of religion and the Thirty-nine Articles, and to see that their boots and hair were properly cared for. In the nature of his office, he resembled the ancient pedagogue much more than the modern teacher.

The Colleges, being independent and extraneous foundations, were not under the control of the University. Established by the liberality of individuals, they were only bound to obey the statutes of their founders, which were generally minute, formal, and intolerant. They were not, in any sense, national establishments; they were private property, and, by the caprice of their founders, the benefits which they held out were often limited to the founders' kin, to the graduates of a particular public school, or to the inhabitants of a certain city, county, or district. Their endowments, consisting chiefly of real estate, rose immensely in value during the reigns of the Tudors and the Stuarts; and the income being shared by statute among only a certain number of Fellows and Scholars, the portion of each one rose, from the little pittance originally deemed sufficient for the support of a poor student, to the handsome revenues which now surround their fortunate possessors with the comforts and luxuries of life. The number of the Colleges increased, as that of the Halls diminished. Soon after 1300, there were but three of the former, to three hundred of the latter. A century afterwards, the number of the former had risen to seven, and in 1516, to twelve, the number of the Halls having fallen, meantime, to fifty-five. At present, there are nineteen Colleges at Oxford, and, nominally, five Halls, the latter, however, now differing from the former only in name, and by the fact that, not being incorporated, their property, if they have any, is held for them in trust.

It is evident, from this account, that the Colleges were not originally either seats of learning or places of education, but

private charitable establishments, endowed for the beneficent purpose of supporting poor students while they were engaged in their studies at the University. The great and illegal change which Sir William Hamilton complains of, took place when these private institutions gradually supplanted the public University, which was a national establishment, usurped its functions, deprived it of all efficiency, and reduced it in fact to the shadow which it now is. The civil wars of the Roses, the decline of the scholastic philosopy, and the disturbances produced by the Reformation, greatly diminished the concourse of students, and Oxford, for a time, was nearly deserted. The Halls, which, as unendowed establishments, were entirely dependent upon the number of their inmates, consequently fell into decay, and were abandoned. The land and buildings which they once occupied became greatly depreciated in value, and were generally purchased at a low price by the Colleges, whose endowments carried them safely through this period of adversity. These institutions were now enabled to monopolize the ground, and most of them having greatly enlarged their borders and opened their doors for independent members, they became desirous of drawing the whole academical population within their walls, and assuming the entire control of the University. To prevent the reëstablishment of the Halls, the Chancellor obtained the exclusive privilege of nominating their Principals, or in other words, of preventing their institution, if he saw fit. The government of the University by all the Masters or Doctors, in Convocation assembled, was practically rendered null by instituting, in the reign of Charles I., a new Board, composed of the Heads of the Colleges, at whose "Hebdomadal Meeting" every proposal, intended to be made either to the Congregation or Convocation, must be previously discussed and sanctioned. Thus the Colleges, hitherto not recognized at all in the government of the University, now obtained the exclusive management of it.

Their next proceeding was to monopolize the instruction also. The statutory condition for obtaining a degree was attendance on the lectures of the Professors. The Heads of Houses ceased to enforce this condition, the lecture-rooms

consequently were deserted, and many of the Professors therefore ceased to lecture at all. Mere residence at the University for a prescribed period became the only necessary qualification for graduating in either of the Faculties. One exercise after another was dispensed with, or allowed to fall into disuse, till the system was so reduced, that a student became ultimately a Doctor of Laws, Medicine, or Theology, in the same manner in which a calf grows to be an ox. All the tuition actually afforded was in the lowest Faculty, that of Arts, and was given by one College Tutor, — an officer now elevated from the very humble position of a *pædagogus* into the very high and honorable one of dispensing all the education which the University afforded. The stipends of the Professors, fixed in ancient times, when the value of money was great and the expenses of living were inconsiderable, became quite inadequate to their support in the seventeenth and eighteenth centuries. This evil was remedied in other Universities by allowing them to exact moderate fees from those who attended their lectures, though their instruction was originally designed to be gratuitous. But the Heads of Colleges at Oxford refused to sanction this expedient, and the Professorships were therefore given either to very incompetent persons, or to those who, as the salaries had become almost nominal, did not scruple to hold them as sinecures. But the most important consequence of the usurpation of the Colleges was the loss of the public or national character of the University; the former, as private corporations, having a right to limit their privileges to any class of persons whom they preferred, exacted subscription to the Thirty-nine Articles; and all who were not members of the Church of England were thus, for a long period, deprived of the benefits of a University education, and are still excluded from Oxford and Cambridge.

These are the alterations, silently and gradually effected in the course of many years, to which our author attributes the decadence of the English Universities, both in reputation and efficiency. The measures that he proposes for their renovation are too numerous and complicated to be fully considered here, though a few of them may be specified. He asks, first, that the study of philosophy, so long preëminent in the

old University system, and still zealously cultivated, as a means of education, in France and Germany, may be again required at Oxford and Cambridge. Before this step can be taken, however, it is necessary that the standard of instruction should be raised; for it is remarked that "Philosophy, in Oxford, as in Cambridge, was only left untaught when the ordinary instructor had become incapable of teaching it." This seems strong language; but it is not more decided than that of Mr. F. W. Newman, a distinguished Fellow of Balliol College, and the editor of Huber's learned and elaborate work on the English Universities. Speaking of Theology, Mental and Moral Philosophy, Roman Law, and History, Mr. Newman says, "I appeal to any Oxonian, whether there is any one of these subjects for which Oxford is even a third-rate school." Hamilton maintains that philosophy ought again to be made an independent study — not a mere incident to the reading of certain classical authors — both for its own sake, and for its tendency to render the philological teaching there more philosophical. He holds the balance between Professorial and Tutorial instruction very evenly, giving no exclusive preference to either, but showing that both ought to have place in any complete scheme of University education. The function of a Professor he defines to be, the delivery, from his own resources, of a course of lectures on some department of knowledge, to the whole body of learners in the institution; that of a Tutor, is to teach certain books or codes of doctrine to a class of pupils, who constitute but one section of the whole academic population. The necessary condition of any improvement of Professorial tuition is a radical change in the mode of appointment, or in the system of patronage, which, as it exists at present, both in England and Scotland, he holds to be vicious and absurd. Despairing of the probability of any such change, he relies chiefly on the improvements that may be effected in the plan of Tutorial tuition. One is reconciled to this system by the consideration, that, in the character of the books which are authorized to be taught, some guaranty can be taken for the character of the instruction which is to be given; but the opinions of a Professor are those of an individual only, and whatever may have been his

reputation for learning, ability, and didactic skill, we can have no assurance of the soundness or wisdom of the doctrines he may inculcate. "How few academical courses have been thought worthy of the press, even by self-love or the partiality of friendship; and of those which have actually been published, how few have the public thought worthy of perusal!"

But to make the Tutorial system efficient, many modifications of it, as it now exists at Oxford, are essential. Mr. Newman rightly states, that it is both a great evil and a great injustice, first, to compel University students to enrol themselves in some College, — and as most of the Colleges at Oxford are crowded, the applicant must go to any one in which he can find a vacancy, — and then, to force upon them the Tutor of that College, "though a notoriously abler instructer may be on the other side of the street." Sir William Hamilton proposes, that, instead of being restricted each to his particular College, the Tutors should become University officers, and a number of them should be employed jointly in teaching each of the public or University classes into which the Collegians should be distributed. Thus brought into direct public comparison with each other, the spirit of competition would soon render them energetic and faithful in their work. None should be appointed to the office but those who have graduated with First Class Honors in the department in which they are to teach. A few College Tutors should be retained, to combine the advantages of private preparatory discipline with those of public instruction in the University class. The selection of books and studies should be made by a Board specially constituted for this very purpose; and it is insisted that, in making the selection, the studies should be viewed, not in their *objective* relation, as leading to useful knowledge for future application in life, but "in their *subjective* relation, as a means of cultivating the capacity itself of thought."

But we cannot follow any farther Sir William Hamilton's plan of University Reform, especially as it goes much into detail, and this article is already extended to an unreasonable length. It is a satisfaction to find, that, in some of its principal features, this plan is a near approximation to the system actually pursued in our American Colleges. With the unfor-

tunate exception, that studies here are almost universally estimated according to the usefulness of the information acquired in them, and to the directness of their bearing upon the student's future pursuits in life, it may be said that our Colleges already occupy the position which the English Universities are striving to attain. Of course, we do not allude to the amount of scholarship, the means and appliances of learning, or even the thoroughness of the tuition which is actually afforded. We refer only to the plan of operation, or the general arrangement of the machinery of a liberal education. Here, we are less fettered by precedents and positive institutions; we have not the collected abuses of six centuries to sweep away. Experiments are rashly tried in American Colleges, it is true; but even these experiments prove that we have a capacity for reform, and their unfortunate result supplies wisdom for the future. We lack the strong incitements to study, the prodigious stimulus to exertion, which the large population and magnificent endowments of the English Universities afford. But it is consoling to learn that so much is accomplished without them; and it is reasonable to hope that the proverbial liberality of our countrymen will soon supply the defect. If any are inclined to complain of the management of our higher seminaries of learning, and of the meagreness and inferiority of the work actually accomplished in them, when compared with the measure of a liberal education at the time-honored Colleges of our mother land, we commend them to an attentive perusal of Sir William Hamilton's strictures upon the history and present condition of the University of Oxford.